

## PERSONAL INFORMATION



## Sette Diop

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## POSITION Doctoral Commission

## WORK EXPERIENCE

1989-10-01 to present

### Researcher

Centre National de la Recherche Scientifique: Gif sur Yvette, Île-de-France, FR

▪ Chargé de recherche (Laboratoire des Signaux & Systèmes)

[Business or sector](#) Control theory

## SCIENTIFIC PAPERS

- **Influence of micro-environment on yeast population dynamics***Ecological Engineering and Environment Protection*  
2019 | journal-article
  - URI: [hal-02413956](https://hal.archives-ouvertes.fr/hal-02413956)
  - DOI: [10.32006/eeep.2019.2.0513](https://doi.org/10.32006/eeep.2019.2.0513)Source: Sette Diop via HAL
- **A new algorithm for semi-active control of mixed base isolation***Procedia Engineering*  
2017-09-12 | journal-article
  - URI: [hal-01643550](https://hal.archives-ouvertes.fr/hal-01643550)
  - DOI: [10.1016/j.proeng.2017.09.457](https://doi.org/10.1016/j.proeng.2017.09.457)Source: Sette Diop via HAL
- **A new semi-active control based on nonlinear inhomogeneous optimal control for mixed base isolation***Structural Control and Health Monitoring*  
2017 | journal-article
  - DOI: [10.1002/stc.2032](https://doi.org/10.1002/stc.2032)
  - EID: 2-s2.0-85019660018Source: Sette Diop via Scopus - Elsevier
- **Relaxation base seismic isolator***Earthquake Engineering and Structural Dynamics*  
2016 | journal-article
  - DOI: [10.1002/eqe.2747](https://doi.org/10.1002/eqe.2747)
  - EID: 2-s2.0-84992291507Source: Sette Diop via Scopus - Elsevier
- **Unscented Kalman filter state estimation of anaerobic digestion of fruits and vegetables wastes.**  
2015-06 | other
  - URI: [hal-01262101](https://hal.archives-ouvertes.fr/hal-01262101)Source: Sette Diop via HAL

- **Observers for sampled data nonlinear systems via numerical differentiation**2007  
*European Control Conference, ECC 2007*  
2015 | conference-paper
  - EID: 2-s2.0-84927729079
 Source:Sette Diop via Scopus - Elsevier
- **On continuous time differentiation observers***European Control Conference, ECC 1999 - Conference Proceedings*  
2015 | conference-paper
  - EID: 2-s2.0-84930608628
 Source:Sette Diop via Scopus - Elsevier
- **A dynamic estimation scheme of specific growth rates of bacteria for an anaerobic wastewater treatment process**2013 *17th International Conference on System Theory, Control and Computing, ICSTCC 2013; Joint Conference of SINTES 2013, SACCS 2013, SIMSIS 2013 - Proceedings*  
2013 | conference-paper
  - DOI: [10.1109/ICSTCC.2013.6688955](https://doi.org/10.1109/ICSTCC.2013.6688955)
  - EID: 2-s2.0-84893211533
 Source:Sette Diop via Scopus - Elsevier
- **A robust nonlinear semi-active control for base seismically-isolated structures**2013 *21st Mediterranean Conference on Control and Automation, MED 2013 - Conference Proceedings*  
2013 | conference-paper
  - DOI: [10.1109/MED.2013.6608775](https://doi.org/10.1109/MED.2013.6608775)
  - EID: 2-s2.0-84885222358
 Source:Sette Diop via Scopus - Elsevier
- **A semi-active controller tuning and application to base seismically-isolated structures**2013 *European Control Conference, ECC 2013*  
2013 | conference-paper
  - EID: 2-s2.0-84893322004
 Source:Sette Diop via Scopus - Elsevier
- **On a differential algebraic system structure theory***IFAC Proceedings Volumes (IFAC-PapersOnline)*  
2013 | conference-paper
  - DOI: [10.3182/20130204-3-FR-2033.00204](https://doi.org/10.3182/20130204-3-FR-2033.00204)
  - EID: 2-s2.0-84881034541
 Source:Sette Diop via Scopus - Elsevier
- **Commande prédictive non linéaire de la culture de microalgues pour la valorisation biologique de CO2**  
2012-06-14 | conference-paper
  - URI: [hal-00761722](https://hal.archives-ouvertes.fr/hal-00761722)
 Source:Sette Diop via HAL
- **Nonlinear Predictive Control for continuous *Chlorella vulgaris* culture in a photobioreactor**2012 *20th Mediterranean Conference on Control and Automation, MED 2012 - Conference Proceedings*

- 2012 | conference-paper
- DOI: [10.1109/MED.2012.6265701](https://doi.org/10.1109/MED.2012.6265701)
  - EID: 2-s2.0-84866927729
- Source: Sette Diop via Scopus - Elsevier
- **Estimation of *Chlorella vulgaris* growth rate in a continuous photobioreactor** *IFAC Proceedings Volumes (IFAC-PapersOnline)*
- 2011 | conference-paper
- DOI: [10.3182/20110828-6-IT-1002.02025](https://doi.org/10.3182/20110828-6-IT-1002.02025)
  - EID: 2-s2.0-84866754370
- Source: Sette Diop via Scopus - Elsevier
- **Optimization of the interval approach for *Chlorella vulgaris* biomass estimation**
- 2011 | conference-paper
- URI: [hal-00640700](https://hal.archives-ouvertes.fr/hal-00640700)
- Source: Sette Diop via HAL
- **Optimization of the interval approach for *Chlorella vulgaris* biomass estimation** *Proceedings of the IEEE Conference on Decision and Control*
- 2011 | conference-paper
- DOI: [10.1109/CDC.2011.6161110](https://doi.org/10.1109/CDC.2011.6161110)
  - EID: 2-s2.0-84860663217
- Source: Sette Diop via Scopus - Elsevier
- **Robust state reconstruction of linear neutral-type delay systems with application to lossless transmission lines: A convex optimization approach** *IMA Journal of Mathematical Control and Information*
- 2009 | journal-article
- DOI: [10.1093/imamci/dnp008](https://doi.org/10.1093/imamci/dnp008)
  - EID: 2-s2.0-70349153075
- Source: Sette Diop via Scopus - Elsevier
- **On differential algebraic decision methods for the estimation of anaerobic digestion models** *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*
- 2007 | book
- EID: 2-s2.0-38149086856
- Source: Sette Diop via Scopus - Elsevier
- **A differential algebraic approach to anaerobic digestion estimation problems** *14th Mediterranean Conference on Control and Automation, MED'06*
- 2006 | conference-paper
- DOI: [10.1109/MED.2006.328717](https://doi.org/10.1109/MED.2006.328717)
  - EID: 2-s2.0-35948984065
- Source: Sette Diop via Scopus - Elsevier
- **Robust state estimation of linear neutral-type delay systems: A convex optimization setting** *14th Mediterranean Conference on Control and Automation, MED'06*
- 2006 | conference-paper
- DOI: [10.1109/MED.2006.328716](https://doi.org/10.1109/MED.2006.328716)

- EID: 2-s2.0-35948939631

Source: Sette Diop via Scopus - Elsevier
- **An observer and an integrated braking/traction and steering control for a cornering vehicle** *Proceedings of the American Control Conference*  
2005 | conference-paper
  - EID: 2-s2.0-23944510715

Source: Sette Diop via Scopus - Elsevier
- **More on a decoupled control model of a vehicle suspension system** *IEEE International Symposium on Industrial Electronics*  
2005 | conference-paper
  - DOI: [10.1109/ISIE.2005.1528944](https://doi.org/10.1109/ISIE.2005.1528944)
  - EID: 2-s2.0-33748355363

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- **Vehicle velocity, side slip angles and yaw rate estimation** *IEEE International Symposium on Industrial Electronics*  
2005 | conference-paper
  - DOI: [10.1109/ISIE.2005.1528935](https://doi.org/10.1109/ISIE.2005.1528935)
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- **Diagnosis of nonlinear systems using an unknown-input observer: An algebraic and differential approach** *IEE Proceedings: Control Theory and Applications*  
2004 | journal-article
  - DOI: [10.1049/ip-cta:20040191](https://doi.org/10.1049/ip-cta:20040191)
  - EID: 2-s2.0-17044445903

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- **On numerical differentiation algorithms for nonlinear estimation** *Proceedings of the IEEE Conference on Decision and Control*  
2003 | conference-paper
  - EID: 2-s2.0-1542348651

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- **An improved active suspension yaw rate control** *Proceedings of the American Control Conference*  
2002 | journal-article
  - DOI: [10.1109/ACC.2002.1023124](https://doi.org/10.1109/ACC.2002.1023124)
  - EID: 2-s2.0-0036059634

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- **A global exponential observer based on numerical differentiation** *Proceedings of the IEEE Conference on Decision and Control*  
2001 | journal-article
  - DOI: [10.1109/CDC.2001.980345](https://doi.org/10.1109/CDC.2001.980345)
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- **A global exponential observer based on numerical differentiation**

- 2001 | conference-paper
  - URI: [hal-02762028](https://hal.archives-ouvertes.fr/hal-02762028)
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- **A resettable kalman filter based on numerical differentiation**
  - 2001 | conference-paper
    - URI: [hal-02760596](https://hal.archives-ouvertes.fr/hal-02760596)
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- **A resettable Kalman filter based on numerical differentiation** *2001 European Control Conference, ECC 2001*
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- **An algebraic and data derivative information approach to nonlinear system diagnosis** *2001 European Control Conference, ECC 2001*
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    - EID: 2-s2.0-84947475503
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- **On an algebraic and differential approach of nonlinear systems diagnosis** *Proceedings of the IEEE Conference on Decision and Control*
  - 2001 | journal-article
    - DOI: [10.1109/CDC.2001.980166](https://doi.org/10.1109/CDC.2001.980166)
    - EID: 2-s2.0-0035710574
 Source: Sette Diop via Scopus - Elsevier
- **On nonlinear system diagnosis via high-gain observers for bioreactors** *IEEE Conference on Control Applications - Proceedings*
  - 2001 | conference-paper
    - EID: 2-s2.0-0035697410
 Source: Sette Diop via Scopus - Elsevier
- **Preserving stability/performance when facing an unknown time-delay** *Control Engineering Practice*
  - 2001 | journal-article
    - DOI: [10.1016/S0967-0661\(01\)00078-8](https://doi.org/10.1016/S0967-0661(01)00078-8)
    - EID: 2-s2.0-0035678093
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- **On numerical differentiation algorithms for nonlinear estimation** *Proceedings of the IEEE Conference on Decision and Control*
  - 2000 | journal-article
    - DOI: [10.1109/CDC.2000.912005](https://doi.org/10.1109/CDC.2000.912005)
    - EID: 2-s2.0-0034440036
 Source: Sette Diop via Scopus - Elsevier
- **Intake oxygen concentration estimation for DI diesel engines** *IEEE Conference on Control Applications - Proceedings*
  - 1999 | conference-paper

- EID: 2-s2.0-0033349163  
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- **On regularized numerical observers** *Proceedings of the IEEE Conference on Decision and Control*  
1999 | conference-paper
  - EID: 2-s2.0-0033324649  
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- **Two numerical differentiation techniques for nonlinear state estimation** *Proceedings of the American Control Conference*  
1999 | conference-paper
  - EID: 2-s2.0-0033284160  
Source: Sette Diop via Scopus - Elsevier
- **On numerical observers. Application to a simple academic adaptive control example** *ECC 1997 - European Control Conference*  
1997 | conference-paper
  - EID: 2-s2.0-84949091689  
Source: Sette Diop via Scopus - Elsevier
- **Comparison between different real-time harmonic analysis methods for control of electrical machines** *IEE Conference Publication*  
1994 | conference-paper
  - EID: 2-s2.0-0028730179  
Source: Sette Diop via Scopus - Elsevier
- **Interpolation and numerical differentiation for observer design** *Proceedings of the American Control Conference*  
1994 | conference-paper
  - EID: 2-s2.0-0028583641  
Source: Sette Diop via Scopus - Elsevier
- **Closedness of morphisms of differential algebraic sets. Applications to system theory** *Forum Mathematicum*  
1993 | journal-article
  - DOI: [10.1515/form.1993.5.33](https://doi.org/10.1515/form.1993.5.33)
  - EID: 2-s2.0-0008331413  
Source: Sette Diop via Scopus - Elsevier
- **Equivalence between algebraic observability and local generic observability** *Proceedings of the IEEE Conference on Decision and Control*  
1993 | conference-paper
  - EID: 2-s2.0-0027757591  
Source: Sette Diop via Scopus - Elsevier
- **On the identifiability of deterministic nonlinear model parameters** *IFAC Symposia Series*  
1993 | conference-paper
  - EID: 2-s2.0-0027266217  
Source: Sette Diop via Scopus - Elsevier
- **Rational system equivalence, and generalized realization theory** *IFAC Symposia Series*

1993 | conference-paper

- EID: 2-s2.0-0027259969

Source: Sette Diop via Scopus - Elsevier

- **Differential-algebraic decision methods and some applications to system theory** *Theoretical Computer Science*

1992 | journal-article

- DOI: [10.1016/0304-3975\(92\)90384-R](https://doi.org/10.1016/0304-3975(92)90384-R)
- EID: 2-s2.0-38249014570

Source: Sette Diop via Scopus - Elsevier

- **Nonlinear observability, identifiability, and persistent trajectories** *Proceedings of the IEEE Conference on Decision and Control*

1992 | conference-paper

- EID: 2-s2.0-0026716880

Source: Sette Diop via Scopus - Elsevier

- **Elimination in control theory** *Mathematics of Control, Signals, and Systems*

1991 | journal-article

- DOI: [10.1007/BF02551378](https://doi.org/10.1007/BF02551378)
- EID: 2-s2.0-0026049994

Source: Sette Diop via Scopus - Elsevier

- **A state elimination procedure for nonlinear systems** *New Trends in Nonlinear Control Theory*

1989 | conference-paper

- DOI: [10.1007/BFb0043028](https://doi.org/10.1007/BFb0043028)

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